66

Recd. Novr. 30th [Milledgeville, Georgia]

Ansd. Decr. 12th

LIBRARY
NEW YORK
BOTANICAL
GARDEN.

Dr. John Torrey

Dr. Sir,

Your kind favor came to hand when I was too sick to read it & continued ~~has~~ ill health of myself together with sickness in my family have prevented me from answering you at an early moment.

I will with great pleasure during the winter put up & transmit you a packet composed of such specimens as I think will most interest you. Unfortunately for you I have never paid any attention to the grasses & am therefore incapable of selecting those that would be interesting. I will, however, send you specimens of all on hand. Some may perhaps prove interesting to you. I will here remark that if I had known where to address you I would have sent you specimens two years past: but I understood you were in Europe collecting materials for your proposed work.

The Boykinia described by Mr. N. in the Journal of the A. Sci. of Pha. I have not seen. May not Dr. Hooker award it the same fate as he has the Nuttallia. Is it not likely it is too near Aconitum to be separated?, I make these remarks because I have Dr. Hooker instantly failed to recognise Nuttallia. I would have been prouder to have had Mr. N. let the plant sent you by Dr. Short bear my

from the J. J. Crooke Collection

Given by A. M. VAIL. MAR 4 - 1907

name. It is legitimately my discovery & therefore I can claim it as my bantling. I am more indebted to Mr. N.'s friendship than memory: for when he was last in this Country I showed him a specimen & he at once pronounced it new & at the moment did me the honor to dedicate it to me. It has since been notoriously recognised as Boykinia Trispora (the specific name given by me). My friend Dr. Wray of Augusta has distributed by seeds & roots to his Correspondents in this Country & in Europe for several years past ~~by~~ under my name. Now what will those say when another Boykinia is announced? The first Boykinia is I think entitled to precedence. The absence of Mr. N. has prevented me from reminding him of his friendly misapplication of my name.

I have a new genus which is not dedicated & which I will send you with a minute description. I ought to have remarked that the B. Trispora has never been described. Mr. N.'s specimens given by me were shipwrecked.

The Neottia Odorata described by Mr. N. in the J. of A. of Natural Sciences Pha. is perhaps the same I had discovered & proposed to name N. Tristicha from its three rows of flowers. I perceived no fragrance in mine. Flowers October.

I have a new Lobelia legitimately aquatic grows in water with Pontederia Lanceolata & Villarsia Cordata. all of which you shall have.

I have made no list of plants of our vicinity, nor have I ever attempted to give technical descriptions. I have not studied Botany scientifically, I may be only called an amateur: for I have studied it only as an amusement & not for the purpose of publishing any thing in my name. By giving you minute descriptions I may enable you to describe scientifically - Indeed I am now less perfect in Botany than I was some years past. The only Books I have, are Turtons Linneus, The genera Plantarum. Pursh, Elliot, Nuttall, your Compendium of the N. & Middle States, Bartons & Bigelows floras of Pha & Boston.

Pray let me know what other good works may be had in your city.

I am greatly in arrears to my good friend Dr Short, I failed to send him a package last winter, - He has the zeal to make a Botanist.

Be assured it will afford me great pleasure if I can be the means of furnishing you with any useful materials for your proposed work - The many late discoveries render a new work on the botany of our Country almost indispensable

Very respectfully yours

Nov. 19. 1835. S. Boykin

25

Dr John Torrey,

New-york.

Recd. Oct. 29.

Dr. Sir. The covers are nailed on your boxes & they placed at the Stage office in the care of a friend who expects to start to Augusta in the morning with them, from hence I have directed them to the care of a friend in Sav:h with instructions to ship them to William Cooke & Co: 142 Water Street New York, where I hope they may soon & safely be in your hands. I have a box for Dr. Short & hope I may find a direct conveyance to him by means of horse or hog drivers, otherwise I must send it by way of Philadelphia.

You must instantly on the arrival of the boxes open both for the purpose of finding the bat, I forget which one contains it, you will find it ~~there~~ in a thin box pushed down on one side, when you get it out & see to its preservation go to the other box & commence your labours, you will then find most of the rarer plants in it. I beg you, in every instance wherein I have called your attention to a plant by a mark of interrogation or otherwise to send me the true name or remark in as few words as possible what ~~may be suggested from~~ you think proper. In most cases I have only given the genus, just for the purpose of economising your time, well knowing a few moments of observation would only be necessary to one so well acquainted with the habits of our plants to detect the genus; in other instances I give the species, in others no names because you will instantly know them & in a few instances I had forgotten if I ever knew the plants & did not take time to investigate them. I recollect having inadvertently miscalled some & others again I occasionally forgot to label. In my letter a few days since, I informed you why the plants were put up so disorderly & why you would in a few instances find the same species in each box.

I am very sorry that I have no drawing of the one called "Boykinia". I had a pretty good one which I gave Dr. Wray two years since. You will however find two very imperfect attempts at painting it, which may enable a drawer under your inspection to make a tolerable painting of the plant, the berry is made too long for its diameter & the male flower still more imperfect, the leaves if finished would do, the flowers are a greenish white & I ought to have said in my description that the male stamens are three & lobed just as most of the Cucurbitacea.

The plant which I propose to call Beyrichea can also be easily drawn, by making the leaves a deep & glossy green, & regularly decussating, the flowers blue & near the top as you see in the specimens & but a single one or two on a plant at the time, they come out one day & the next have withered. The seed vessel with its coverings so singular you will find enclosed in a paper & dried so as to exhibit them well for examination, the nectary I presume, you will not detect. (See my description).

The new Lobelia which I proposed to call L. Paniculata (I think) is upon reflection strictly racemose or nearly universally, except when mutilated, it then puts forth branches which make it paniculate. I now suggest Stolonifera as a specific name for it, because it increases by stolons forming large beds of crowded plants. You will perhaps find some other Lobelias which merit an investigation.

Somewhere you will find two species of Ilex, one with the fruit, one I think not described, they grow 10 to 15 feet in height in the River swamp.

I have called your attention to an Andromeda out of flower collected in the up country, is deciduous & must I am certain be new.

Some specimens of Hypopithys Lanuginosa were handed to me yesterday, Michaux & Mr. Elliott after him say the flowers are in spikes; all that I have seen are in racemes. Mr. N's description is accurate. In flower now.

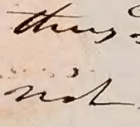
20 Octob. 1836. The boxes were sent in the stage to Augusta this morning—

The plant having the appearance of a Polygonum found with the Cleome Cuneifolia, is new to me. The seed are very like P. Fagopyrum.

If you are not careful you may overlook the single specimen of what I take to be Utricularia Biflora, my other specimens were mislaid or lost.

I regret that a great many of the Syngenesious plants ~~Diadelphous~~ Papilionaceous, Euphorbias & very many of various families were so much injured that I had to throw them away.

In relation to Pontedaria, I can remark that I never saw P. Cordata but in living or moving water as on the ~~banks~~ edges of the Rivers, & P. Lanceolata always in ponds or stagnant water.

The petals of the Silene ovata are not fimbriate, the divisions of the limbs are linear & parallel thus 

I have examined it carefully & could not see a single one of the ~~lacis~~ divisions subdivided. The roots 18 inches to two feet in length, with scarcely any branches. It puts forth many stalks from the root like Cucubalus. See my ~~reasons~~ reasons for putting it with Cucubalus. The Silene Fimbriata is most beautiful, but in drying loses its handsome pink colour.

When Mr. Nuttall returns you will likely see him & if you do, remember me most affectionately to him & tell him I would be more than gratified could he spare the time to write me.

I expect to remove the ensuing winter to Columbus on the Chatahoochee River where, no doubt, the ensuing spring I shall make some discoveries. It is rich ~~no doubt~~ in plants in the spring &

Please write me as soon as convenient after examining the plants — Very sincerely yours &c
W. Boykin

It may be proper to remark that the Baccharis, (I do not recollect the species) is a real Straggler, & it belongs to the low Country, but two plants have been found in this vicinity— Milledgeville is in the primitive region, the secondary commences a few miles below, hence the rarity of interesting plants in its vicinity.

MILLEDGEVILLE
Ga
OCT 20

Dr John Torrey
New York

On the right ear of the bat I counted 8 distinct & one imperfect tooth like processes & on the left 9 & an indistinct one. See the flap like process just above the meatus internus.— The Ears in drying have become undulate— the mouth was apparently very wide & rendered so by the upper lips projecting over the lower, nostrils distant, nose square, a row of bristles just below the nostrils.

Recd. July 17th Ansd. July 20th

Columbus Geo. June 1837.

Dr. Sir.

Your note with the accompanying present were duly handed me by Mr. Calhoun; for which I beg to convey you my sincere thanks. As I have not given any attention to the study of Nat. orders, your Edition of Lindley would have been more useful on acct of the elementary matter added by you. The present work requiring, I presume a previous study of Lindley's "Outline "of the first principles of Botany" alluded to in his preface. Without a precise knowledge of the many new technicalities introduced, more especially in consequence of both new & more exact views in relation to Veg. physiology, I cannot make the study of the Nat. Orders pleasant or profitable.
It is time really to give a new edition of Martin's Language of Botany.

Though I have been all the while in too infirm health to Botanise, yet in all my excursions I have kept my eyes on the road sides for the "weeds", looking out for something of interest or something new. I flatter myself I have discovered one new weed of the Asclepiadic order, in which you will I think concur, unless a Florida Correspondent has not anticipated me. The plant may possibly be found in that Territory.
By a friend who goes to N. York in a few days I will send you a small packet of dried plants — being mostly more perfect specimens than those sent you last winter. As opportunities of the like often offer, I shall from time to time remit to you in the same way. The growth here is very similar to that about Milledgeville, both towns have the same Geological position, (&c) at the termination of the primitive region. The tertiary formation below Columbus is much more recent than that below Milledgeville say for the distance of from 30 to 40 miles below the primitive region of each place.

this town is about 40 miles south of Milledgeville, - A number of plants, trees & shrubs grow here, that are only to be found 20 miles South of Milledgeville.

N 1st a grass collected 3 miles above this in the shoals 4 to 6 feet high - flowers all masculine - Do send me its name. May & June

2. Brasenia with the fruit & fresh specimens of Polyg. Polygamea

3rd. Utricularia Fibrosa? if not close to it. does exactly agree with Mr. E's description.

4. I do not know - collected them last summer & left at a house without an opportunity for examination - 20 miles below this place

*. 5th

6. Justicia Pedunculosa

7. I take to be Amsonia Salicifolia, found on the banks of the River, growing among the rocks & on Islands in the falls. It seems to differ from A. angustifolia mostly in the absence of pubescence & the leaves more acuminate. I observed that only the flowering stems put out the branches below the flower as you see & these branches have grown out since it was in flower.

5th * an Urtica Canadensis?

8. Podostemum Ceratophyllum. In great abundance on the rocks in this river. It is to be found in a natural & perfect state where always submersed & played upon by a strong Current. In these circumstances it grows to the length of 10 - 20 & sometimes even 30 feet long - In this state of the deepest green imaginable. I send you a number of specimens, showing it in flower, in fruit, in a healthy or natural & in a stunted State. The little tufts so short & so crowded were scraped from the rocks left naked. In the natural specimens you find - the flowers

TORREY CO
HERB
COLUMBIA

scattering & you see its mode of growth - the specimens from which Michaux & Elliott made their descriptions, were no doubt from those I call stunted & they have therefore both committed an error.
The pedicel ~~atta~~ of all the flowers constantly submersed is conspicuously forked & on each of these forks or pedicellula the anthers are attached & thus.*
The pedicels of the ~~stunted~~ flowers of the stunted plants have scarcely any fork as you will see by referring to the specimens - Inclosed you will find two or three small plants scraped from a dry rock, showing its growth as well as the strong points of adhesion to the rocks, each joint will throw off a runner & hence it is easy to see how dense the mat is when from the want of water constantly flowing over ~~water~~ it, it acquires no length but making up the deficiency in excess of fruit.

what is the reason that this "Moss" as the people call it has all disappeared on the Rivers East. the falls of the Savh. Oconee, Ocmulgee & Flint Rivers formally abounded with it. now in the two former you can scarcely find a trace of it & it is almost entirely gone from the two latter. It is impossible that our cattle & hogs can extirpate it: for they can only make a partial destruction, there being thousands of places in the rapids of the Rivers inaccessible to them. I incline to the belief that the turbidness of our waters is incompatible with its existence. after our lands are cleared, all our streams become muddy & no doubt the deposition of the Sediment from the water upon the Podostemum after a few years nearly extirpates it. I notice here where there are dams for fish traps among the shoals & the water rendered somewhat stationary that all the moss has a sickly yellow appearance.

There are myriads of worms on the leaves, a few of which you will see on the dried plants - the most rapid currents do not detach them & they become an inch long;

* The immature flower is included in a membranous spathe which seems to be bursted by the extension of the Peduncle. Observe the spathe uniformly the length of the Peduncle. Pursh is more accurate.

ORRESPONDENCE
RBARIUM
A UNIVERSITY.

this is the "Moss" that cattle, deer, hogs & in former times the Bison, eat with so much avidity. In the Summer, Cattle, deer & hogs go into the shoals & feed upon it - Indians & frontier hunters used to secrete themselves by the shoals to shoot the deer when they come to feed on the moss in the River. ~~I am here~~ One of our creeks Uchee-Conna, means deer trap, the deer had but one place at a certain shoal to get to the creek to feed & when the Indian found him, he was as safe as in a trap, he was sure of it, & hence the name.

One fact in relation to ruminating & I have done with this long note. a gentleman of unquestionable veracity who once lived on Flint River, after remarking how excessively fond cattle are of the Moss, said that cattle in feeding on the moss take in ~~these~~ & swallow with it a great many small pebbles entangled in the moss & that during the night, while rechewing the previous days ingesta, they along with it regurgitate the pebbles & in this second mastication take care to drop the pebbles out of their mouths. He had often seen a large handful of pebbles thus spit out by a single Cow in the course of one night - thus this moss gives us an additional cause for contemplating the wisdom of deity in constituting the order of 'Ruminantia - this would have been a useful fact to the Compilers of the Bridgewater Treatises -

9th Schwalbea. Polyg. viridescens & Thesium

10. Solanum Hirsutum (Nutt) abundant here.

11 - Asclepiadea. Certainly not described in any authority to which I can refer. If you assent to the course pursued by Mr

Nuttall & Elliott, in dividing the asclepiadeae into several genera, you must also consent to make a place for this. It is quite as unlike asclepias as acerates or Podostigma.

Perennial, root large & the colour externally like that of A. Tuberosa – to the taste rather insipid, branches from the root many – decumbent – 12 to 20 inches long, stem large & purple hairy above, smooth below, angular above produced by the decurrent petioles – Leaves as you see them, observe their pubescence & reticulation – both upper & lower leaves uniformly more tapering, those of the middle oblique at the end, midrib above purple, edges scabrous, in the axils as in other asclepiadeae a row of tooth like glands, at the base of the leaf on the upper side of the midrib uniformly a cluster of these denticulated glands, leaves horizontal & decussating as though opposite.

* Flowers mostly terminal, leafy, umbels single & compound umbels many flowered, flowers erect & mature partially in all stages on the same umbel – Calyx slightly tipped with purple, Corolla erect, campanulate, perhaps more strictly urceolate, deeply divided, both sides greenish, edges membranous & ciliate, segments ovate, much larger than any of the kindred species

Nectary, a stellated expanded crown, the leaves of the crown clavate, falcate, of a deep purple – near the end 3 large whitish spots, uniting at their base, at the union of these spots a minute or abortive horn, free only at its point & appressed, the horn not coming from the centre, but being a part of the integument of the crown leaf, the base & end of the leaf inflated. The stellular crown in expanding inflates the Corolla considerably before its expansion. The stellated crown with its variegated spots gives the flower a beautiful appearance – Corpuscle large, its angles & fleshy leaves much bellied & large. a young follicle examined shows that the seed will be comose & situated as in asclepias – The above remarks with the specimens & a few flowers dried so as to show their conformation will enable you to describe the plant accurately

primitive region of each

* Found on the Chattahoochee bottoms 20 miles below this town – Flowers May & June. The smallest flowering plants were selected for drying.

TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY

12. Helenium Quadridentatum (of Mch.): marsh

13. Phlox. — Eriocaulon villosa:

14. Pogonia Divaricata - Rare in the up Country

15. Aceratis Longifolia of Mr. Elliott - A. Longifolia (Mch.) badly described by Pursh - these are the first specimens I have ever seen:

16. Sarracenia Variolaris - abundant here.

Dr. Short writes me you determine my Cucurbitacea to be a Bryonia. But for the arrangement of the seeds & their number uniformly 3. I should have thought it a Bryonia.

I beg you to send by the first opportunity to our zealous friend Dr. Short - a specimen of No. 1. 3. 4. 7. 8. 9. (that is a Schwalbea & Polyg. viridescens, & the Thesium unless you desire it.) 10. 11 (2 specimens). 12. 15 & 16. (the flower & fruit) this I presume is no rarity to you - the Dr. is anxious for all our Sarracenias.

If Mr. Nuttall is in Pha I will thank you to present him, with my remembrances, a specimen of No. 11.

When my dear Sir, will you favor us with your proposed Botany of N. America. I have understood your materials were as perfect & as full as you could make them from all sources both in this Country & Europe. Mr. Nuttalls late trip will furnish much matter - It is really time that the many late discoveries in Botany be embodied in a ~~sea~~ single work - I understand you have a great horror for the Sexual system. But should you publish a work on botany, I deem it best for Tyro's in this Country that you use the Linnean Classification. Have an addenda in which you may say as much as you please about Nat. orders.

I should, if the person who attends to my business below on the River, had known how to preserve them, have sent by this conveyance other specimens of the yellow rat, & besides, certainly a pigmy of an animal not described as far as I know whose existence has not been known by any inhabitants of this region. My man being instructed to watch for any thing curious had before mentioned it, but I was fearful of intimating its existence in my previous letter for fear it might be a young Sorex. A sight of one of these little animals even in a putrid state convinced me it was altogether different from any animal I had ever seen described. It is little longer than a half grown domestic mouse, with the feet & legs of a Sorex & with a long cuneate head terminating in a moveable ~~snout~~ snout, tail about 2 inches long, the shape of its mouth like an acute isoceles triangle, the under incisors seemed to make barely an angle with the jaw, projecting almost straight forward, eyes very small. I regret I did not examine it more carefully, but I was quite sick & fatigued, & the smell of the animals (attempted to be preserved in a solution of nitre) was so offensive I could not remain by them when turned out of the solution.

The animal is exceedingly feeble, putting it in the waistcoat pocket killed it. They seem to be gregarious, the man tells me he exposed about 20 at one time last spring in tearing up a rotten stump. I shall soon or later secure some of these rarities, having at hand now spts wine for their preservation. Let me hear something about my new Asclepias; I shall be so disappointed if it be not even to you a new "weed". Very sincerely yours

Samuel Boykin

Dr. John Torrey

New York

Recd. Aug. 26th Ansd. Augt. 28th

Dr. Sir.

It has been a long time since we interchanged communications. You should have heard from me had I any thing to communicate. For two years, it is true, I have paid but little attention to plants, but whenever in the woods I have always been on the watch & have only found the enclosed Arabis. I obtained it last spring on the Chat. River about 20 miles below this place. I regretted that sickness of my family prevented me the past spring from making an excursion to an interesting region west & So. West of this.

Should I live until next spring I will endeavour to make the excursion.

Pray how are you progressing in your botanical work? I have heard that some of the No.s are in the State, but have seen none.

If you have enough completed to make one vol. or even two please have them bound & sent to the Counting house of Leroy M. Wiley & Co: where the bearer of this Mr. Hill ~~and~~ will find it. I shall instruct him to pay & if he neither see you or your agt. to leave the money with Mr. Wiley.

Please let me hear from you by mail. It is always a pleasure to hear from you.

A professor of botany in our Methodist female College at Macon Geo has published a manual of Geo & Southern plants, -

I regret that he has omitted very many well known plants & scarcely any of the plants discovered by many of us since the death of Mr. Elliott.

Very sincerely yours

August 14. 1841

S. Boykin

To Dr. John B. Torrey

New York

Dr Torr.

TORREY CORRESPONDENCE
[illegible]
[illegible] UNIVERSITY.

[illegible] of 6 April was duly recd. It found me [illegible] sick, indeed I have been almost at death's door the past winter with chronic disease of long standing.

Shortly had before you applied to me through a friend about the plant to which you refer. All that I can now say of that is, it was collected in the vicinity of Milledgeville before the years 1823 & 24. And I have no doubt I sup=posed it to be a new species of Thesium of Linnaeus or closely allied to it. Thus much I know: specimens were forward=ed to Mr Elliott which he [illegible]. But they are not to be found I presume, as I have heard you have had the use of his en=tire herbarium. Between the publica=tion of his sketch & his death he recd from me every thing I collected.

Shortly before Mr. E's death I had Mr. Nuttall at my house a few days. I turned over to him my entire lot of dried plants. Among which he said there were many of growing investigation. They were all on a ship wrecked in Boston Harbour & lost.

In 1824 I went to the north for the benefit of my health & put up a few, as I thought interesting plants as a means of introduc=ing me to some one of our northern Botanists.

I called on Mr Collins & gave him the packet.
This is the manner by which he got the plant & really all I remember: for I do not recollect but one plant in the lot given to Mr Collins.

I send you a few plants & regret that the two most interesting to me are imperfect specimens. When in Cherokee County in 1843 I collected specimens of No 1. a Silphium which I think is new. By accident the packet was opened & the flowers were lost. I tried the past summer to get more live flowers but failed. I wonder that you did not ~~discover~~ see it as it grows near the road he must have travelled. I hope I send enough of it to enable you to decide whether it is described or not.

2 Parnassia - 3 Monkey-hoods. Mr Darby has requested me to send him several plants among which I think No 2 & 3 are mentioned.

No 4. I judge is not a native of Cherokee.

No 5. is a perfect stranger & grows 12 to 14 miles below this place. I hope the seed vessels will reach you. I have to put them in a separate packet.

I wish you were here now to see our Asclepias genus in flower. Many are in blossom. I have not the fruit of A. Connivens. It is not yet in flower. You will remember that A. Parviflora is the only southern species not common.
I do hope you will let nothing hinder you

from finishing the No. American Botany
I & others are impatient for its Completion.
You have never said any thing about the
Hypericum I found in the up Country
I was not satisfied that it was described by
Mr Elliott or yourself. I did not, it is true,
give it a patient investigation.
I found also last in Cherokee the habitats
of the Rhexia Virginica. It grows in great
abundance just ^only^ below the Geo R. Road
Bridge over the River Hightower or Eto-
wa. I had the promise of seeds & plants
but they have not been sent me
My long ill health has prevented me
from doing any thing of late for you.
I have not in 3 years experienced a day
of healthy feeling.
I beg you to communicate to Mr Curtis
my recollections of your "Darlyad".
Do let me hear from you occasion-
ally.
Very truly yours
Columbus Geo
May 25th 1847
S Boykin

P.S. The packets sent you start
from here to-morrow & are di-
rected to the Care of Wiley & Putnam

10

Dr. John Torrey

Princeton

New Jersey

Dr Sir

June 27. 1847.

A few weeks since I wrote you a hasty letter & sent by a friend a few specimens, & those the most important were mutilated. I hope you have rec'd. the two packages to be left with W. & Putnam. I am desirous to know if you can by those seed vessels recognise the probable genus. I have a few young seedling plants growing & two from the roots sent to me & transplanted. I fear I shall get no flowers from either. Worms eat the leaves almost as fast as they come out. The Vine I have flowers in March.

When you wrote me last you were engaged on the Asclepiadea. In looking for A. Cinerea by your request with a view to send you the seed vess. I have in the pine. Woods Spag[illegible] branches found a splendid Asclepias which I have not before seen. If it be not Laurifolia it is a new species & if Nuttall is correct in saying the A. laurifolia is smooth on both sides of the leaf, then this is not the L. for the under side of the leaf is tomentose.

my plant is 4 to 6 feet high & on a thrifty plant some of the leaves are 9 inches long. I forbear a description as I am drying some plants which shall be sent to you as soon as they are ready to pack up -

I have also in the same situation discovered a new species (to me) of Sabbatia. It is not described by Elliott. It is 3 to 4 feet high. It is not in full flower, but I am drying a specimen for you.

I have also perhaps found a new species of Houstonia - all of which shall in a few days be sent to N. York, with some other plants for the purpose of illustrating their families.

You perhaps do not know that I have for the benefit of mine & Mrs B's health removed 3 miles from Columbia on the west side of the river. It is here where I have collected the above plants. I am too feeble to do much in the way of botanizing.

I hope you will not be obliged to send your Asclepiadeae to the printer before you receive my next packet.

yours &c

S. Boykin

P.S. Since your last letter to me I have seen Bishop Elliott the son of my old friend the Botanist. He told me you never had his fathers herbarium in possession as I had supposed, that parts only had been forwarded to you. I have no doubt the Santalaceae you have dedicated to Mr. Darby is in the herbarium. I know specimens were sent to him by me & Ned.. as I always sent him the best, perhaps both male & female specimens may be in the herbarium. & I hope you will through Dr. Bachman or directly to Miss Elliott cause a search to be made.

GRAY HERBARIUM CORRESPONDENCE HARVARD UNIVERSITY

Charg^d 189. V.B.

Dr John Torrey

Princeton

New Jersey.

Dr John Torrey
New York

Dr. Doctor.

Yours of ~~[illegible]~~ written partly the 14 & 20 July are duly rec.d. I can assure you nothing would afford me more pleasure than to have you with me here collecting our plants a week or studying this locality. I promise that if ever I again go to the north I will make it a point to hunt you up be you where you may. It would give me more pleasure to spend a few days with you & Dr. Gray than with any other persons living.

You no doubt judge correctly of the hybrid Verbenas. They were all collected within a square ~~[illegible]~~ place growing intermixed.

[not?]

I admire your disposition to multiply species, the great fault of Michaux, Pursh & Rafinesque. Still could ~~[illegible]~~ just set you down where I collected the Silphium No. 1. & show you a spot of 40 acres with thousands upon thousands of plants in what might be called a pond for 6 months in the year, every plant having several radical leaves like those sent you, you would I think say it must be different from any species found in Middle or lower Georgia. Our Silphiums grow generally in poor sand-hills or very dry situations. The few straggling I saw in other localities were in branches. When I collected the specimens I walked about to hunt for varieties of Rad. leaves. Some were wider & some more round at the apex than others but all really cordate & crenate as you see. I gathered but 4 leaves which included all the variety I could discover & when I was putting up the basket for you I deemed it useless to send but two.

The leaves are erect & have a coriaceous appearance & may possibly be biennial. I will endeavour to get perfect specimens yet I am uncertain if the Rad. leaves are green through the winter. It grows in Cass County Geo. near where the Coosawattee River breaks through the mountains.—

The Melilotus was found close to the Verbena. I judged it to be brought there just where I found it on the great highway through the Cherokee nation & by a celebrated spring called "Rock Spring" where waggons stopped for the night going & coming.

I have never seen Aristolochia Sipho in flower, hence I know nothing about its fruit. But since I have seen the latter now, it appears to me you do violence to natural order to place it with Serpentaria. I have cultivated the Serpentaria & the woolly leaved species now sent you again No. 3. In the first packet I ever sent you, had cultivated specimens— In this the seeds are of the shape & form of grape seeds, save the flattening at the point of the grape seed. I have several seedling plants & several sprouts from an old Root which will give me flowers in March if not killed by frost. If you want any plants. You may likely decide my Asclepias to be laurifolia. Its root is as unlike that of Liatris as it can be. See Nuttall's description. I forgot to mention that the Carbonell is more concave at top than in any other species.

No. 1. — In this Asclepias Laurifolia: Grows in sphagnose bogs. Perennial, 4 to 6 feet high, on some plants the leaves are oblique, almost falcate. You have specimens of the largest as well as smallest plants. In No. 1. you have every leaf on the stalk. I remarked [illegible], that there are generally 6 pairs of opposite leaves on the stalks. say from the first flower down. Flowers in June & July. — I send along, the seed vessel & roots, say parts of roots: for I do not know to what depth they penetrate in the mud. They appear tuberous. You have one young root entire — with all the parts of the plant before you, you can determine whether it is described or not.

No. 2. In this you have, I trust, a new species of Sabbatia, it grows in the same locality of No. 1. Perennial 3 to 4 feet & sometimes 5 feet high, the whole plant glaucous, stem round & hollow, the leaves sessile, lanceolate & subconnate? the flowers in corymbs & snow white, one of the most showy & beautiful herbaceous plants in our woods. Flowers from June to August.

S. macrophylla
Hook
Companion bot. mag.
DC prod.
9 - -

I suggest to name it (if new) S. Glauca.
N: 3. In this you have an undescribed
aristolochia. It is certainly different
from A. Serpentaria. I sent you cul=
tivated specimens in 1836. you now
have them from nature. Its range
I know is from Athens Geo to this
place. - It is subject to a peculiar
caterpillar that never attacks A.
Serpentaria or any other plant.

4. Houstonia Longifolia

5. Houstonia? the flowers like
leptophylla
H. Rotundifolia. villous & hypo-
crateriform. Perennial, growing
6 in poor dry soils. June to August

6. Is this Phlox Glaberrima of Elli
ott? at a distance one would sup-
pose it P. Maculata, but it is
not when examined, the leaves near
the stem ciliate & in a plant of
natural growth the leaves are con
nected by a membrane, - not so
however in ~~thrifty~~ plants - decurrent
line of hairs at right angles with
the pair of leaves above. Grows in the
pine woods - flowers June to August
~~thrifty ones will be more pubescent in~~
and is very abundant.

No 7. This Phlox is what I have always thought to be aristata. P. Pilosa flowers in Mch & April. Mr Nuttall is wrong in supposing P. Aristata a variety of P. Pilosa. The latter branches from the root & not the stem. By the by when at Athens Geo many years since Dr Ward Prof. of Botany there pointed out to me a phlox which he called Pilosa. I determined it at once to be a different species. It was not then described & I called Mr Beyrich's* attention to it who was then in Athens & satisfied him that it was not the plant known as the true Pilosa. I begged Dr Ward to send specimens to the north

No 8. Ripe seeds vessels of Asclepias Amplexicaulis.

" 9. Seed vessels of A. Obtusifolia. It not unfrequently has 3 verticillate leaves at the joints as you see.

No 10. Rudbeckia Purpurea & Tofieldia Pubens. I found the former in an arid situation & knew it would dry prettily. It may be acceptable to a foreign Correspondent. Mr Nuttall I think removed this from the Genus R.

No 11. Phlox from the rich bottoms of the Chattahoochee River, rather a pungent, the leaves a deep shining green. It may be Nitida?
June to August.

*the Prussian Botanist.

No 12. An Eriocaulon which I have not seen about Milledgeville. The scape as you see too weak to be erect, it is prostrate. August villosum

13. Linum virginianum for the purpose of comparing with a subsequent species or variety. To compare with No: 18.

14. A grass collected for you last year, became misplaced, hence its bad condition. In mid-summer collected. Manisuris granularis

~~15. This is what I take to be Asclepias [illegible] of Walter & A. Connivens of Baldwin & Anantherix of Nuttall~~

15. Acerates? of Elliott? [illegible] I sent you specimens in 1836, but not so perfect. In some plants the leaves are spathulate, or oblong. — July.

16 A Compositae close to Brickellia & Eupatorium. Does not grow about Milledgeville. The plant fetid but rendered handsome by the long two parted white styles & purple colour of the florets of the disk. Radical leaves not seen. July & August.

17. This Helianthus seems to connect H. & Actinomeris. instabilis? Like A. the rays long & pendulous, the seed winged & the two teeth almost persistent because attached to the wings. The rays in earlier flowers much longer than those of the specimens sent you. June to August

Actinomeris (Apterous) nudicaulis

the leaves generally but not uniformly
opposite, several stems from the same root.
the leaves often much narrower than in
the specimens – Common in poor dry soils.
the leaves have the aspect of Rudbeckia.
Helianthus astericus? of Elliott?

18. In the same bog in which I found the
Asclepias & Sabbatia No 1 & 2. I found
this Linum. It seems to be perennial
& much larger in the stem than L. V. &
much more paniculate. The flowers are
1/4 to 1/3 less than L. Virginianum & the Cap-
sules more distinctly 10 celled. Is it a
variety of L. V. I send you plants
with the roots, fruit &c. &c. Those plants
which have not been trodden down or
nipped by Cattle grow more than 3
feet high & much branched.
It is the habit of L. V. to grow in dry
soils rich or poor, but more abundant
in poor soils in this Country.

19. The fruit of Anantherix Nuttallii & A. Connivens
of Baldwin. you have heretofore had
good flower specimens from me. These
follicles are from the 3rd or 4th crop of
flowers – Cut or break off the stems &
new ones will put out with flowers.
It is like the palm tree abuse it ever
so much & it will flourish, but in its
natural soil, rich, black, stiff soil.

But in light sandy soil as in my garden in Columbus it will flourish but for a few years. the tubers are very large & uncommon by tenaciousness of life. they will remain a year in the ground when badly injured, before sprouting.

It may be well to observe that the Petals are not uniformly connivent, when the flower is fully expanded, it is exactly of the shape of a bowl, but pluck off a stem & in a few minutes they close as you see in the dry specimens.

Can they be the same species found by Dr Baldwin at St Marys Geo? He says it grows in the piney woods. now they will not live long in the pine-woods here.

The leaves grow very much after it is out of flower. they become generally 1/3 larger. this is true I believe of several species. I observed it distinctly in No 1. of this packet. — the leaves on the second & third crops of stems are always smaller than those of the first. Its regular time of flowering is May & June. The older the root the more flower stems it puts up. the first time of budding flowers it has but one stem, but in a few years it will produce a dozen. I have tubers enough all connected to fill a peck measure

No. 20. Hypericum Simplex

" 21. Lindernia. Collected in midsummer

" 22. Collinsonia anisata. (Sept. 11)

23. Grass. collected early in October

24. Lobelia Glandulosa. (Fall)

25. Lobelia - of the species ~~of which~~ I am not certain. It ~~with~~ + the above ~~are~~ the two latest flowering species we have they flower from the last of summer to frost. The former grows exclusively in wet situations & may be said truly to be aquatic. The latter grows on the borders of branches where the soil is moist. It has also two glands near the base of the peduncle, the glands ~~rather~~ longer & more acute than the former. Those plants which grow in rather dry situations ~~produce~~ make to use Mr. Nuttall's expression "pauper specimens." I send specimens of well grown & badly grown plants. I call attention to one of the plants ~~with~~ its ungrown radical leaves. Is this L. Puberula? [Rad[illegible]

CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY

26. Eryngium Ovalifolium.

27. I don't know - has 10 stamina & every other one seems abortive - ~~xxx~~ without ~~from~~ anthers. It grows in a dry situation. Collected in September.

28. Centaurella Paniculata (Summer)
29. Triptilella Capitata. Sept. ~~October~~ to November.

I would have forwarded this packet soon but for waiting for its fruit. In the mean time I have made a few additions to the packet, but do not know whether they are of any particular interest. The grass No. 23 I never saw before. Its appearance when collected was much more scarious than you now see. I have never given the mosses any study & of course know but few of them. Could I have known which of our common plants would have been desirable I might have added many more to the packet.

I send the Cy[illegible] ovalifolium because I have found it difficult to obtain perfect specimens, that is, with the radical leaves — Having sent you generally good specimens, I deemed it ~~self~~ most proper to confine my remarks to their habits — I am in the country & have been really too [illegible] to study out the plants not familiar to me. I would not bring the few authorities I possess from town.

If however the Asclepias does not turn out to be a new species, I feel confident No: 2 the splendid Sabbatia will; I send you a good supply of specimens for yourself & friends. I send you besides mature seeds for your Correspondents. I requested you to send Dr. Hooker a [illegible].

I send you also a paper of seeds of Scilla Esculenta, which grows on the stiff rich flats of the Chattahoochee from Columbus 20 Miles below, whether farther south I cannot say. It certainly has a remarkable range from the Rocky Mountains to nearly 32° south.

I beg you not to forget my old Correspondent Dr. Short of Kentucky. Send him of whatever will be new to him that you can.

I have a protegee in Botany in Texas at Saint Antone. I begged him when he left to correspond with you. His name is Kellog (Dr.). Have you heard from him? Do let me know when you expect to have the 4th Number of [illegible] 2nd finished & published.

Insert them between my 3 numbers to Wiley & Putnam & have them bound.

I have scribbled more than you will have patience to read, & I therefore think it time to subscribe myself yours very sincerely

16 Octob 1847. J. W. Boykin

Dr John Torrey

New York

Near Columbus Geo
11 Nov 1847

Dr Sir

I have had my packet ready for you three weeks, but could not find a conveyance for it. A friend leaves in 2 or 3 days who promises to take charge of it. I had to wait this long to procure specimens of the fruit of the asclepias about which I had written to you. the immature follicles were gotten in Septr. I thought then I would wait for one to ripen its seed this I collected about the 10th of October some had however previously ripened & bursted & the seed scattered & some not then ripe. I forgot to mention in my memorandum that the old follicle ~~are~~ is more pursy ~~tent~~ than in any Southern species. I saw last May old stems with the follicles the capsules only: for when the follicle bursts, the seeds are scattered immediately as in other species — I make these remarks because I know, if you decide it to be Laurifolia you nevertheless will be anxious to know its habits.— Let me remark that has been one of the most remarkably wet springs & summers ever known in this country. From the last of April to the 10th of Septr. rains were incessant. Many plants were in flower longer than I ever observed before & even longer in maturing their fruit.

I had no idea of writing you this letter
as I thought I had written quite enough to
tire you to read enclosed with with the
plants. But walking out this afternoon
I observed the grass (I think No. 23) & collected
some seeds & knowing your anxiety always
to possess them in case the plant is rare
or new - I thought I would enclose you
some. The long persistent & regularly divergent styles
struck me as curious. Let me repeat again
I know nothing about the grasses.
It is already putting forth shoots from the old
roots for the next year's growth

= May not the caterpillar & worms sometimes
be a guide to us in determining of species?
if not of genera. The Cordate woolly leaved
aristolochia I sent you the winter of 36 &
37 was the produce of a root I collected
in the up Country & brought home & trans=
planted in my garden. The spring after
when the stem & leaves were about grown,
the leaves were attacked by a large yellow
caterpillar, & leaves pretty well eaten up before
I noticed the ravages of the worms. They were
different from any I had ever seen. nor have
I since the same worm until I collected the
one or two specimens now sent you - I found
a young one on one of the plants the leaves
of which you will find partly eaten.
there were but 2 plants within a few feet of
each other & they small & thin looked in

vain for others, yet one of these isolated ~~species~~ plants was found by the moth or fly on which to deposit its eggs - the first year I destroyed every caterpillar on the plants in my garden. The second year they came again & I destroyed them until I had secured specimens. I then let them alone & after eating all the leaves they attacked the seed vessels & eat them - Now I know this caterpillar never attacks A. Serpentaria

Again the asclepiadia which I take to be the anantherix of Nuttall & A. Connivens of B. when transplanted in my garden was attacked by a peculiar caterpillar with transverse stripes they attacked the plant every year until it died. I tried to exterminate them by searching for & destroying every worm as fast as they showed on the leaves. Still the succeeding year they came as abundantly as ever. Now this worm I have never seen on any other of the asclepias family. What is strange to me, this plant growing in its natural situations is rarely molested by this or any other insect.

I cultivate the officinal Senna for family use. It is liable to be attacked by a peculiar caterpillar about the size of the cabbage worm as we call it here but very different from the cabbage worm. This caterpillar never attacks any other species of Cassia

The worm that we call "boll worm" which last year & the present has done incalculable destruction to the young & ~~old~~ grown bolls of cotton does not touch the leaves, it leaves them for what is called the army worm when it chooses to come.

Now it is a well known fact that worms prey upon their appropriate food & will not generally eat plants promiscuously. Now if a worm will prey exclusively on one plant & not touch its near relations, is it not a strong reason for pronouncing this a different plant & thus may they not aid us in determining doubtful species?

I give you one more circumstance. Last August year I saw a patch of Potatoes (Convolvulus Batatas) destroyed by a caterpillar never before seen ~~at least~~ It destroyed the entire leaf, leaving the stem & midrib. It was a large black worm the size of a man's finger & 3½ to 4 inches long. They burrowed in the ground & in digging the potatoes (which by the by did not produce one fifth of a crop in consequence of the destruction of their leaves) thousands of them were dug up, in their chrysalis state. A potatoe patch close by the present year was not affected by them. I fear I tire you with remarks about worms, if so I will not allude to them again. I am sorry to tell you I have lately been quite sick

Vy Sincerely yours

S. Boykin